Orgasmic Pain and a Detectable PSA Level After Radical Prostatectomy

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IN THE LAST ISSUE, DR O'LEARY PRESENTED THIS CASE REPORT:

Sexual dysfunction after radical prostatectomy occurs commonly, even with the nerve-sparing technique. After the surgery, many men have difficulty obtaining and maintaining an erection sufficient for intercourse, and most of the literature focuses on the prevention or treatment of this outcome. But what happens to orgasm, which is arguably even more important to most men than erection? There is very little discussion in the urologic literature about this problem. It is well understood that concomitant surgical removal of the seminal vesicles along with the prostate produces a "dry" orgasm and that most men retain the ability to achieve a sexual climax, yet most urologists likely spend little time explaining this to patients preoperatively. Fewer still are aware that other significant adverse effects of radical prostatectomy on sexual function are possible. The following case illustrates the importance of this.

A man had undergone regular screening for prostate cancer by his primary care physician. His prostate-specific antigen (PSA) had been consistently less than 3 ng/mL, and he had no urinary symptoms. In 2000, at the age of 53, his PSA increased to 4.8 ng/mL. He was referred to a urologist who recommended prostate needle biopsy, which was performed. Ten cores were obtained: 2 on the right revealed Gleason 3+2 adenocarcinoma and 2 on the left revealed Gleason 3+4 adenocarcinoma. Prostate volume on transrectal ultrasound was 22 cc.

The patient was otherwise in excellent health and was sexually active. He was counseled about treatment options and chose radical prostatectomy. A nerve-sparing radical retropubic prostatectomy with bilateral pelvic lymphadenectomy was performed. According to the operative note, the seminal vesicles were removed en bloc with the prostate. Pathology revealed Gleason 4+3 adenocarcinoma in both lobes of the prostate, with no evidence of tumor in right or left lymph nodes (TNM stage T2cN0). The margins were negative for tumor. The patient had an uneventful recovery, but his 6-week postoperative PSA was 0.02 ng/dL, raising concern that he was not free of cancer and that adjuvant radiation therapy should be considered. He continued to be sexually active, although he required sildenafil to achieve an erection. In addition, with and immediately following orgasm he had intense pain in his

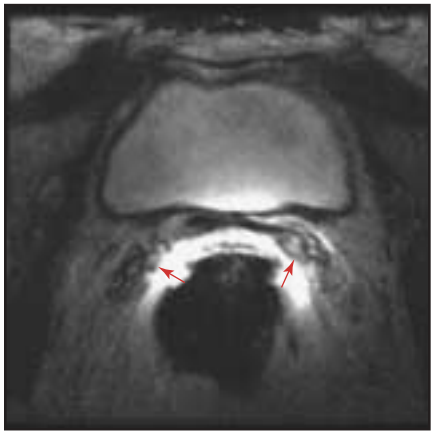

Figure 1. *Endorectal coil MRI showing bilateral seminal vesicle remnants.*

perineum and deep pelvis that lasted several minutes. Six months after his radical prostatectomy, he was referred to our sexual dysfunction clinic for evaluation.

The patient had partial erections on his own, which he augmented with 100 mg of sildenafil. He was able to achieve climax, but described a "burning" and "searing" pain in his perineum and deep pelvis each time he had an orgasm. He said that this would last for several minutes and subside spontaneously. This was a significant deterrent for the patient and his partner to engage in sexual activity. Results of his physical examination were unremarkable, with normal genitalia and a flat fossa on digital rectal examination. His PSA remained 0.02 ng/dL. An endorectal coil MRI was obtained (Figure 1).

The Following Management Options Were Offered:

The next appropriate step in the management of this patient is:

1. Adjuvant radiation therapy
2. Transrectal biopsy
3. Reassurance and observation; repeat PSA measurement in 3 months
4. Oral analgesics
5. Antiandrogen therapy

Author's Discussion

The patient's MRI shows clear evidence of retained seminal vesicles. In the literature, both radical retropubic prostatectomy and perineal prostatectomy are described as including complete removal of both seminal vesicles,[1,2] although it has been suggested that a seminal vesicle–sparing procedure can be performed to preserve pelvic innervation and improve urinary incontinence.[3] The authors of this report did not comment on orgasmic function in their series. In our experience, any seminal vesicle remnant following radical prostatectomy may result in intense pain during or immediately following orgasm, as in this case. Furthermore, retained seminal vesicle tissue may secrete PSA.

Barnas and colleagues[4] recently reported a series of 239 men who underwent radical prostatectomy and were queried specifically about orgasm. Of this group, 22% had no change in orgasm; 37% reported a complete absence of orgasm; 37% experienced a decrease in intensity of orgasm; 14% reported pain during orgasm; and 4% reported increased intensity of orgasm. Among patients who reported pain during orgasm, about one third reported it with every orgasm, while two thirds reported it only occasionally or rarely. Most stated that it lasted for less than 1 minute. The mechanism of pain in these patients is unclear, but we have investigated several of these cases and have discovered a common finding of retained seminal vesicles, as shown here. Unfortunately, there are no simple methods to eradicate retained portions of the seminal vesicle, and it is uncertain whether this would eliminate orgasmic pain even if it were possible. We believe that meticulous removal of the entire seminal vesicle should be routine with radical prostatectomy. There are several anecdotal reports of amelioration of orgasmic pain with tamsulosin.

Another interesting feature of this case is the patient's persistent PSA level. Retained seminal vesicles may be the source of the PSA (which should be undetectable after radical prostatectomy) since seminal vesicles have been found to produce detectable levels of PSA.[5] For patients whose PSA levels fail to become undetectable after radical prostatectomy, it may be appropriate to consider imaging before initiating adjuvant therapy such as radiation. Imaging is also appropriate for patients who have pain with sexual activity. ■

References

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